(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 24 December 2003 (24.12.2003)

PCT

(10) International Publication Number WO 03/105942 A1

(51) International Patent Classification⁷: A61M 31/00, 5/168

(21) International Application Number: PCT/GB03/02579

(22) International Filing Date: 16 June 2003 (16.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

0213596.0 14 June 2002 (14.06.2002) GB 0226436.4 13 November 2002 (13.11.2002) GB

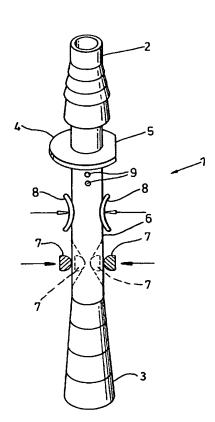
(71) Applicants and

(72) Inventors: RICHARDSON, Margaret, Pamela [GB/GB]; The Spinney, Errox Hill, Saundersfoot, Pembrokeshire SA69 9BD (GB). RICHARDSON, Philip [GB/GB]; The Spinney, Errox Hill, Saundersfoot, Pembrokeshire SA69 9BD (GB).

- (74) Agents: NEWELL, William, Joseph et al.; Wynne-Jones Laine & James, 22 Rodney Road, Cheltenham, Gloucestershire GL60 1JJ (GB).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: IMPROVEMENTS IN AND RELATING TO CONTROL OF LIQUID FLOW INTO OR OUT OF A HUMAN OR ANIMAL BODY



(57) <u>Abstract</u>: Apparatus for controlling the operation of a catheter, the apparatus including an inlet for receiving the output end of a catheter and an outlet for discharging liquid received from the catheter, valve means between the inlet and the outlet for controlling the flow of liquid through the apparatus, sensing means for sensing one or more properties of the liquid in the apparatus, and control means for controlling operation of the valve means in response to a sensed property of the liquid, such as pressure, and/or in response to a predetermined criteria, such as a time interval having elapsed.

WO 03/105942 A1